

**CLAIMS**

1. A method of treating indoor household surfaces comprising:  
applying to all or part of the indoor household surface a first coating  
composition to form a protective layer, wherein the coating composition  
is essentially free of pigment, and,  
subsequently removing any soil or stain from said coated surface by  
applying to the coated surface a cleaning treatment or composition.
2. The method of Claim 1 wherein the coating composition comprises a  
fluorinated compound.
3. A method of protecting an indoor household surface selected from: a  
painted wall, wall paper and wall cloth, from stain, soil or other degradation,  
comprising applying to all or part of the indoor household surface a  
composition comprising a fluorinated compound.
4. The method of Claim 3 wherein the fluorinated compound is a fluorinated  
polymer.
5. The method of Claim 3 wherein the fluorinated compound is a  
perfluorinated polymer.
6. The method of Claim 3 wherein the fluorinated compound is functionalized  
to form a covalent or non-covalent bond with the material of the surface to  
be treated.
7. The method according to Claim 6 wherein the fluorinated compound  
comprises one or more functional groups selected from the group  
consisting of: silane, phosphate, carboxylate, alkylamide, polyether,  
sulphonate, sulphate and amine.

8. The method of Claim 3 wherein the fluorinated compound has an average molecular weight of between 400 and 4,000.
9. The method of Claim 3 wherein the fluorinated compound is selected from the group consisting of fluorinated polymers having the formula:  $X-CF_2-(O-C_2F_4)_n-(OCF_2)_m-OCF_2-Y$ ;  $Cl-(C_3F_6O)_n-CF_2-X$ ;  $Cl-(C_2F_4O)_n-CF_2-X$ ; or  $X-CF_2-(O-C_2F_4)_n-(OC_3F_6)_p-(OCF_2)_m-OCF_2-Y$ , and (partially) hydrogenated forms thereof, wherein m, n and p represent, independently, integer numbers, including 0, m+n or m+n+p being different from 0, wherein X and Y are, independently,  $CF_3$  or an hydrogenated form thereof, a hydrogen atom, a chlorine atom, or a functional group or a different polymer sequence.
10. The method according to Claim 3 wherein the composition further comprises one or both of a fluorosurfactant and a solvent.
11. The method of Claim 10 wherein the fluorosurfactant comprises a functional group selected from sulphonate, carboxylate, sulphate and phosphate functional groups.
12. The method of Claim 11 wherein the composition comprises a fluoropolymer with a terminal silane functional group and a fluorosurfactant with a sulphate, sulphonate or phosphate functional group, or combinations thereof.
13. The method according to Claim 3 wherein the composition further comprises one or more agents selected from the group consisting of: surfactants, perfumes, stabilizers, emulsifying agents, polycarboxylate polymers such as polyacrylates, methacrylates or polyurethanes, thickeners, antistatic agents, UV light screening agents, optical brighteners, non-fluorinated silicone compounds and film-forming polymers, alone or in various combinations thereof.

14. The method according to Claim 3 wherein the composition is essentially free of pigment and comprises, by weight:

0.01-40% of a fluorinated compound;

0-40% of a fluorosurfactant;

0-30% of a surfactant;

0-30% of a solvent, in particular an alcohol, ether or ester;

0-50% of a non-fluorinated silicone compound;

0-50% of a polycarboxylate polymer; and

20-99.9% of water.

15. The method of Claim 14 wherein the composition further comprises an optical brightener.

16. The method according to Claim 3 wherein the composition is applied by a sprayer, brush, roller, sponge, wipe or a mop.

17. The method according to Claim 3 wherein the surface is all or a portion of an indoor household wall such as a painted wall, wall paper or wallcloth.

18. A method of forming a transparent film at the surface of an indoor painted wall, wall paper or wallcloth, said method comprising applying a composition comprising a fluorinated compound to all or part of said surface.

19. The method of Claim 18 wherein said fluorinated compound protects said surface or material from stain, soil or other degradation.

20. A method of cleaning an indoor household surface, wherein the surface has been treated by a method of Claim 1 wherein said cleaning composition comprises at least one of a solvent and a surfactant.

21. The method of Claim 20 wherein the cleaning composition comprises a fluorinated compound.

22. The method of Claim 21 wherein the fluorinated compound is a (per)fluoropolyether (non-functionalized) of one of the general formulas: (I)  $\text{CF}_3\text{O}-(\text{CF}_2-\text{C}_2\text{F}_4-\text{O})_n-(\text{CF}_2\text{O})_m-\text{CF}_3$ ; (II)  $\text{HF}_2\text{C}-\text{O}-[(\text{CF}_2-\text{CF}_2-\text{O})_n-(\text{CF}_2-\text{O})_m]-\text{CF}_2\text{H}$ ; hydrogenated forms thereof.

23. A composition suitable for treating indoor household walls or materials, the composition comprising a fluorinated compound with a terminal silane functional group and a fluorosurfactant with a sulphate, sulphonate, carboxylate or phosphate functional group.

24. The composition of Claim 23 further comprising one or more agents selected from the group consisting of: surfactants, perfumes, stabilizers, emulsifying agents, polycarboxylate polymers such as polyacrylates, methacrylates or polyurethanes, thickeners, antistatic agents, UV light screening agents, optical brighteners, non-fluorinated silicone compounds and film-forming polymers, alone or in various combinations thereof.

25. The composition of Claim 23 further comprising an optical brightener.

26. A composition suitable for cleaning treated indoor household walls or materials comprising:

one or more perfluoropolyether and hydrogenated perfluoropolyethers of at least one of the general formulas (I) and (II) in Claim 22;

one or more fluorosurfactants such as perfluoropolyether alkylamide-functionalized;

a solvent comprising one or more of the following agents: ethers, n-buthoxy-propoxy-propanol, di(propylene glycol)methylether, glycols, alcohols, hexane or other hydrocarbon solvents; and

one or more non-fluorinated surfactants.

27. A combination of products for treating household surfaces or material, comprising, separately formulated:

a protective composition, wherein said protective composition is essentially free of pigment and comprises a fluorinated compound; and  
a cleaning composition comprising a solvent and/or a surfactant.

28. The combination of products of Claim 27 wherein the cleaning composition comprises a fluorinated polymer.

29. A combination of products for treating household surfaces or material, comprising, separately formulated:

a protective composition comprising a functionalized perfluoropolyether;  
and  
a cleaning composition comprising a fluoropolymer.

30. A kit for treating household surfaces or material such as painted walls, wall paper and wallcloth, comprising, separately formulated:

an essentially pigment-free protective composition comprising a fluorinated compound;  
and  
a cleaning composition adapted for use with the protective composition.